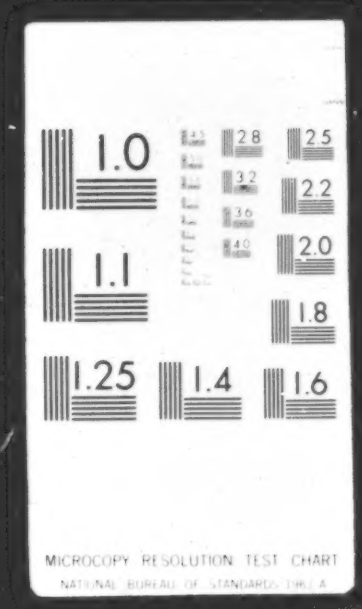
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ABSTRACT

The development of competency-based learning systems at Brookdale Community College in New Jersey is discussed. A concerted effort was made not only to recognize individual differences among students but also to provide instructional strategies that would accomodate the variety of learning styles reflected in those differences. The Brookdale Educational Plan embodies the following components: (1) the Student Development Program, (2) the Career Studies Core, (3) the Community Internship, (4) the Learning Assistance Program, and (5) the General Education Core. Each of these components is discussed. The competency based learning systems at Brookdale mean: (1) that required competencies (learning objectives) are defined in advance (job and transfer standards) for all units, courses, and programs; (2) that course and program competencies must be mastered if credit is to be given and degree awarded; (3) that a wide diversification of learning methods be utilized to cause learning; (4) that all learning experiences must be evaluated, utilizing multiple forms, to determine whether the desired learning has occurred; (5) that the learning pace must be adjusted to needs of individual students (self-pacing); and (6) that the student must assume responsibility for his learning. (DB)

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# "COMPETENCY-BASED LEARNING SYSTEMS"

by

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presented at
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Plaza Inn
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May 29, 1974

Every time I am asked to speak on the topic of non-traditional education, I am reminded of the time when a group of Temperance Ladies visited Sir Winston Churchill to protest the Prime Minister's devotion to alcohol. "Why, Mr. Churchill," one lady told him, "if all the brandy you've drunk were poured into this room, it would fill it up to there." She held her hand halfway up the wall. Churchill shook his head and said sadly, "So little accomplished, so much to do."

Indeed, if all the words I personally have said or written about non-traditional education were poured into this room, I would be standing at least knee-deep in them. And there is still so much to do!

Though we educators have talked for years about "individual differences" in learners, few of us have made any very serious attempts to relate those differences to strategies that promote learning. Consequently, many of our community colleges have not been conspicuously successful in implementing the concept of the open door. Contrary to our idealistic purposes, we have merely multiplied student frustrations to the extent that the slower ones have become discouraged and either dropped out or flunked out.

Furthermore, although most of our community colleges today are facing <u>new demands</u> from <u>new students</u> in the marketplace, we are attempting to meet these

demands in the same old shopworn ways. We continue to base our educational programs on the "Black Coffee Syndrome"...

What do I mean by "Black Coffee Syndrome?" In most of our colleges, one can find in the Student Union vending machines that offer the choice of black coffee, coffee with sugar, coffee with cream, coffee with sugar and cream, coffee with two lumps of sugar, coffee with double cream, etc; yet when one enters the classrooms of the same college, everyone's served the same black coffee. Our colleges fail to recognize the principle of human diversity--so critical in the open door community college--and perhaps best illustrated by the following fable:

"Fable of the Animal School"

"Once upon a time, the animals decided they must do something heroic to meet the problems of "a new world," so they organized a school. They adopted an activity curriculum consisting of running, climbing, swimming and flying, and to make it easier to administer, all the animals took all the subjects.

The Duck was excellent in swimming (better in fact than his instructor), and made passing grades in flying, but he was very poor in running. Since he was slow in running, he had to stay after school and also drop swimming to practice running. This was kept up until his webbed feet were badly worn and he was only average in swimming. But average was acceptable in school so nobody worried about that except the Duck.

The Rabbit started at the top of the class in running, but had a nervous breakdown because of so much make-up work in swimming.

The Squirrel was excellent in climbing, until he developed frustration in the flying class where his teacher made him start from the ground-up instead of from the tree-top down. He also developed charlie horses from overexertion and then got C in climbing and D in running.

The Eagle was a problem child and was disciplined severely. In the climbing class he beat all the others to the top of the tree, but insisted on using his own way to get there.

At the end of the year, an abnormal Eel that could swim exceedingly well and also run, climb, and fly a little had the highest average and was valedictorian.

The Prairie Dogs stayed out of school and fought the tax levy because the administration would not add digging and burrowing to the curriculum. They apprenticed their child to a Badger and later joined the Ground Hogs and Gophers to start a successful private school."

The moral of the fable is, of course, that people are different, and any attempt to fashion all in the same mold rather than capitalizing on individual strengths and potentialities could result in overall mediocrity. Individual talents could go unrecognized, untapped, and undeveloped.

Almost every student who goes to college takes with him the fervent hope that he will succeed. In the traditional four-year institutions, fulfillment of that hope rests almost entirely upon the student's ability to negotiate specified academic hurdles within specified time periods. In the community college, such a system cannot prevail if the college is to live up to its promise to help each student be all that he is capable of being. Though, assuredly, all students cannot aspire to a bachelor's degree, they can make significant contributions to the society in which they live if the college provides them with the necessary specialized skills. For, despite the currently popular myth, degrees in and of themselves are not important. What really counts is the kind of persons the college develops; what they can do, how well they can live and work with others, what they can contribute to those who share their life circumstances.

At the risk of lending credence to Robert Browning's words: "Only one speech--Brookdale," I'd like to illustrate this approach by describing briefly the development of competency-based learning systems at Brookdale Community College in New Jersey, where I served until last fall as Founding President.

Nearly six years ago, when I accepted the presidency of Brookdale Community College, I found myself in the enviable position that Chancellor McHenry of the University of California at Santa Cruz once described as an administrator's dream: "When you have neither faculty nor students to worry about--only a college to build." We possessed that rare and mixed blessing of being at the beginning.

Theoretically, that meant a free hand to develop the kind of educational program which would attract more students, produce greater learning results, and provide more ways to reach the individual than had ever been possible through traditional approaches.

Therefore, a concerted effort was made not only to recognize individual differences among students, but to provide instructional strategies that would accommodate the variety of learning styles reflected in those differences. Such an eclectic approach, while utilizing technological learning aids to their fullest advantage, embraced traditional modes of instruction as well.

As a starting point, Brookdale accepted as probable truth Benjamin Bloom's assertion that 90 percent of all students can master learning tasks. It also took into careful consideration Professor Bloom's warning that, if the college was to provide successful and satisfying experiences for this 90 percent, ". . . major changes must take place in the attitudes of students, teachers, and administrators; changes must also take place in teaching strategies and in the role of evaluation." And, accepting Arthur Cohen's rule of thumb that "if an educational purpose can be defined, it may be cast in the form of an objective," the college committed itself to the systems approach to learning, with emphasis on product rather than process.

For Brookdale, the implication was clear. The college must be organized

deliberately to cause learning. Accordingly, it may be well to take a look at the Brookdale Educational Plan, which is an important reflector of the institution's efforts toward developing an excellent product.

The Brookdale Educational Plan

Underlying the Educational Plan is a philosophy that embraces a twofold purpose of community college education: (1) to prepare the student to earn a livelihood, and (2) to prepare him to live a creative, humane, and sensitive life. But, realizing that each student is an individual cut from a single mold similar to, but not exactly like, that of any of his peers, the Plan makes specific provision for individualized learning. The Plan, therefore, is learner centered, and its emphasis is on what the student learns and the degree of mastery he attains.

To fulfill these obligations, the Plan embodies the following components: (1) the Student Development Program, (2) the Career Studies Core, (3) the Community Internship, (4) the Learning Assistance Program, and (5) the General Education Core.

1. The Student Development Program: Each student comes to his teachers with an individualized educational plan (learning prescription) worked out cooperatively by himself and his student development specialist (as counselors are called at Brookdale), so that the prescription is tailored to fit each individual's needs.

This does not mean, however, that once a student is armed with his own personal learning prescription he is turned loose to work things out on his own. Students do change their goals, perhaps because they originally set their sights too high or, possibly, not high enough. For that reason, the student development

program includes a continual process of evaluation and monitoring of progress to ensure that the student is either successfully proceeding toward realization of his first-stage life and career goals, or that, before it is too late, his learning prescription can be changed.

2. The Career Studies Core: In all career programs, to provide environments that are conducive to helping students integrate their emotional growth with their formal education, the college has grouped related studies into four academic Institutes that serve as home bases for students enrolled in their programs. Within these Institutes, the career studies are grouped on the basis of similarity of student interests and career goals, predetermined through testing. They are offered in Learning Centers (there are no academic departments) that provide an intermix of transfer, occupational, and learning assistance programs. Thus, if a student enrolls in one program but later decides to move into a related program that offers him greater potential for success, he can do so within the same Institute.

3. The Community Internship: It is the college's philosophy that the mere accumulation of knowledge is not the end and aim of education. Rather, it is the useful application of knowledge throughout the student's postcollege life that spells the educated person. But, how to apply one's knowledge--how to perform--is not best learned in the dry-run laboratories of a central campus. Therefore, closely related to the student's career studies program is the opportunity to fuse knowledge and action and obtain off-campus experience in the field of his choice through internships, cooperative education, and work experience programs. Thus, learning experiences may be gained in factories and salesrooms, in business offices and government agencies, in computer centers, hospitals, museums, art galleries, garages, public libraries, police stations, welfare offices.

4. The Learning Assistance Program: Not all students, of course, are able to plunge immediately into career studies without help. Some are deficient in

such basics as communication and mathematics skills, work habits and study skills, that qualify them to enter upon study beyond the high school level. For those who fall in this category, the college offers developmental courses that provide practice and/or a sequence of formal instruction taught on a continuous progress basis and using mediated teaching techniques and special tutoring.

The student deficient in specific skills--for example, comprehension of the language of chemistry--finds special help in the academic Institute in which he is enrolled. Faculty who are skilled in diagnosis and members of the functioning staff-student instructional team provide help, either along or with the aid of special or peer tutors.

5. The General Education Core: But the specialized skills, attitudes, and knowledge provided by the career studies are not the college's only concern. Equally important, if not more so, is the development of the student as an effective human being. Implicit in this aspect of personal development is the need to acquire such common learnings and insights as have mutuality of meaning for educated citizens in a free society.

Learning Objectives

Inherent in the Brookdale Educational Plan, of course, are several basic requirements: (1) The faculty must be committed to the process of inducing students to learn, to developing skills in structuring courses that enhance the total curricular pattern of the college, and to translating these courses to students in whatever manner will effect maximum learning. (2) There must be specification of course goals and competencies. For each goal, specific objectives must describe how it will be met, the student action required, the conditions under which such action will be performed, and minimum performance

criteria. (3) The preoccupation with student failure must be eliminated. This implies allowance for self-paced learning, and the removal of specific time limits within which students must master all competencies.

Stated very simple, competency-based learning systems at Brookdale meant:

1. That required competencies (learning objectives) are defined in advance (job and transfer standards) for all units, courses, and programs.

2. That course and program competencies must be mastered if credit is to be given and degree awarded.

3. That a wide diversification of learning methods (modes and strategies) are utilized to cause learning. Students could learn through their eyes, through their ears, or with their hands. Two students in the same course might receive the material in different ways--from a lecture, a film strip, or by building a model, or in some cases by all three.

4. That all learning experiences must be evaluated, utilizing multiple forms, to determine whether the desired learning has occurred.

5. That the learning pace must be adjusted to needs of individual students (self pacing). Not lowering standards, rather recognize John Carroll's definition of aptitude: "Amount of time required by learner to master learning tasks."

6. That the student must assume responsibility for his learning. (Active not passive role including peer tutoring.)

In short, Brookdale's Plan tends to emulate the Hospital Model to which institutions of higher learning have often been compared because both college and hospital are characterized by diagnosis and treatment of human needs. The chief distinction between the two types of institutions has always been that hospitals have prescribed different treatment for different patients; whereas, colleges have given all students the same lecture/textbook treatment, regardless of individual needs, explaining treatment failures largely on the basis of the

the student's inadequacies. This is a little like a hospital's saying that there's nothing wrong with the treatment; we just keep getting the wrong patients! Again like the hospital, the college was designed to be a "drop in/drop out" institution, providing short--or long-term therapy as diagnosis indicates.

## SUMMARY

In summary, I would like to share with you what has become my personal "Educational Credo." Rejecting the traditional assumptions that (a) students learn at the same rate; (b) learning best occurs between September and May; (c) students learn best by listening; and (d) students need punitive persuasion to motivate them; we believe: (1) that both administrators and teachers ought to be accountable for student failures; (2) that an individual educational plan (prescription) ought to be developed for each student, utilizing a wide variety of learning experiences; (3) that an educational institution ought to be judged on the basis of what it does for and with students and not on the basis of opening handicaps; (4) that learning for mastery can be achieved by all students--not just a chosen few; (5) that the instructional program ought to accommodate individual differences in learning rates, aptitudes and prior knowledge, for a college exists, not to measure the extent of its students' failures, but to evaluate the depth of their successes; (6) that the individualization of instruction requires the provision of optional paths to learning, and the utilization of a highly diversified teaching/learning team composed of full-time teachers, part-time teachers, media specialists, counselors, paraprofessionals, peer tutors, and community volunteers; (7) that education must be learner and

learning-centered, measured by performance criteria--not teacher and teaching-centered; (8) that teachers ought to be managers of the learning process--change agents, guides-mentors-questioners--not feeders of information; and (9) we believe that each learner ought to be able to start where he is and become all that he is capable of becoming.

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